

Date: Wed, 12 Oct 94 04:30:37 PDT
From: Ham-Homebrew Mailing List and Newsgroup <ham-homebrew@ucsd.edu>
Errors-To: Ham-Homebrew-Errors@UCSD.Edu
Reply-To: Ham-Homebrew@UCSD.Edu
Precedence: List
Subject: Ham-Homebrew Digest V94 #301
To: Ham-Homebrew

Ham-Homebrew Digest Wed, 12 Oct 94 Volume 94 : Issue 301

Today's Topics:

 heathkit phone numbers:POSTED
 Hummerland 600 receiver
 Hummerland SP 600 mod
 INDUCTANCE MEASURING
 Re Inductance measuring
 RF Switches Anyone? (3 msgs)
 Suggestions on Lemon Powered QRP rig (2 msgs)
 Using a 74HC4046 be used for an LO in a receiver?
 Wanted: High Voltage tubes
 Where can I mailorder parts on the Internet?

Send Replies or notes for publication to: <Ham-Homebrew@UCSD.Edu>
Send subscription requests to: <Ham-Homebrew-REQUEST@UCSD.Edu>
Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Ham-Homebrew Digest are available
(by FTP only) from UCSD.Edu in directory "mailarchives/ham-homebrew".

We trust that readers are intelligent enough to realize that all text
herein consists of personal comments and does not represent the official
policies or positions of any party. Your mileage may vary. So there.

Date: Tue, 11 Oct 1994 22:04:37 GMT
From: Mike Lyon <mlyon@rahul.net>
Subject: heathkit phone numbers:POSTED

i recently posted an article asking for phone numbers and such and i got
one e-mail with the answer. i also got a request to post them if i got
them well here they are,

 Heath Company
 455 Riverview Drive
 Benton Harbor, MI 49022
 Phone numbers -
 (616) 925-6000 Main number

925-5899 Parts
925-3273 Repair
925-4914 Technical Assistance
800-253-0570 Order Department
800-444-3284 Catalog request

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Mike Lyon <mlyon@rahul.net>

Date: 11 Oct 1994 18:01:46 GMT
From: Colin.Schmutter@ucsd.edu
Subject: Hummerland 600 receiver

Date: 11 Oct 1994 18:03:40 GMT
From: Colin.Schmutter@ucsd.edu
Subject: Hummerland SP 600 mod

I have a Hummerland SP 600 receiver that I wish to add a product detector to.

I would prefer not to use solid state devices or IC's to keep the receiver all tube.

If anyone has done such a mod or has suggestions please EMAIL me at
CSCHMUTTER@BCIT.BC.CA

Date: Tue, 11 Oct 1994 19:13:47 GMT
From: alanb@hpnmarb.sr.hp.com (Alan Bloom)
Subject: INDUCTANCE MEASURING

Ranson J. Pelt (pelt@vt.edu) wrote:
: QST

: Can anyone give me some advice on a good piece of equipment for measuring
: inductances. I have an LCR meter (LCR 195) which I purchased from Alpha
: Elec. several years ago. This meter works great for measuring capacitance
: but just doesn't get it for measuring small inductances (uh range).

I'm surprised nobody has mentioned the trusty old dip meter method.
A (grid) dip meter is an oscillator with an exposed oscillator coil.
When you bring the coil close to the inductor of a tuned circuit,

the meter "dips" when the tuned circuit is tuned to the frequency of the dip oscillator. (Or the oscillator is tuned to the frequency of the tuned circuit.)

To measure a small inductance, connect it in parallel with a known capacitance to form a tuned circuit. Measure the resonant frequency with the dip meter and apply the formula:

$$L = 1 / [C (2 \text{ PI } F)^2]$$

Where L is inductance (H), C is capacitance (F), PI = 3.14159, and F is frequency (Hz). The formula also holds for uH, uF and MHz.

The neat thing about this method is that you can mount the coil in the actual circuit, so stray capacitance and lead inductance are all accounted for.

AL N1AL

Date: Tue, 11 Oct 94 01:12:06 EDT
From: Mike.Czuhajewski@hambbs.wb3ffv.ampr.org (Mike Czuhajewski)
Subject: Re Inductance measuring

And let me put in my vote for a Boonton 260A Q meter; I have a pair, and they are neat items...and quite expensive thirty years ago. You may occasionally see one at a hamfest; I wouldn't pay anything over (or anywhere near) \$100. I was lucky--I paid \$20 for the more expensive of my two, and both work perfectly. Pitfalls: it uses a thermocouple to drive one of the meters, and if that is burned out it seriously reduces the value of the instrument, although there are ways of working around that. Also, although most of the tubes are 7 and 9 pin miniatures, the detector tube is one of the old style with 6 pins--two fat, 4 skinny, and a grid cap on top. It's basically a 2A6, although Boonton sold special versions with their own part number on it. If that's bad, replacement could be a problem, although you could design some other detector circuit. One final note--there are many different Boonton Q meters out there; for something to cover the HF spectrum, the 260A is the latest model. There are earlier versions such as the 100A and 160A, and there is also one (or more?) VHF versions; I have the 190A, covering 20-260 MHz. The 260A covers 50 KHz to 50 MHz and is quite useful for measuring coils typically used at HF. 73 DE WA8MCQ

Date: 11 Oct 1994 01:50:58 GMT
From: magoo871@raven.csr.v.uidaho.edu (Magoon Steve)

Subject: RF Switches Anyone?

Help! Anyone know where I can get an RF switch suitable for PC mount and controllable by TTL? Power need is low, max +20dbm, but it needs to have *good* bandwidth(>500 MHz) and off isolation. Mini-circuit switches aren't acceptable because they have bleed thru. Sure appreciate any advice. What do the hi-bandwidth o-scope manufacturers use?

--

Thanks, Steve Email: magoo871@uidaho.edu
U of Idaho, Moscow, Idaho.

Date: 11 Oct 1994 02:41:59 GMT
From: lascal@cortez.its.rpi.edu (Lance Lascari WS2B)
Subject: RF Switches Anyone?

Magoon Steve (magoo871@raven.csr.v.uidaho.edu) wrote:
: Help! Anyone know where I can get an RF switch suitable for PC mount and
: controllable by TTL? Power need is low, max +20dbm, but it needs to have
: *good* bandwidth(>500 MHz) and off isolation. Mini-circuit switches
: aren't acceptable because they have bleed thru. Sure appreciate any
: advice. What do the hi-bandwidth o-scope manufacturers use?

I've been looking for the same sort of thing... but that will go up to 3.5 GHz... MA-COMM has some good stuff, try them. Otherwise rolling your own PIN switch might be the only good route...

-Lance

--

Lance Lascari WS2B <lascal@rpi.edu> Senior EE @ Rensselaer Polytechnic Inst.
Mount Greylock Expeditionary Force Secret agent #52,342

Date: Tue, 11 Oct 1994 19:16:39 GMT
From: alanb@hpnmarb.sr.hp.com (Alan Bloom)
Subject: RF Switches Anyone?

Magoon Steve (magoo871@raven.csr.v.uidaho.edu) wrote:
: Help! Anyone know where I can get an RF switch suitable for PC mount and
: controllable by TTL? Power need is low, max +20dbm, but it needs to have
: *good* bandwidth(>500 MHz) and off isolation. Mini-circuit switches
: aren't acceptable because they have bleed thru. Sure appreciate any
: advice. What do the hi-bandwidth o-scope manufacturers use?

With some care, I think you can get reed relays to work up to 500 MHz.

AL N1AL

Date: 11 Oct 1994 17:59:11 GMT
From: moritz@ipers1.e-technik.uni-stuttgart.de ()
Subject: Suggestions on Lemon Powered QRP rig

>I am helping a high school student - KC4ROW - do some work with various
>"fruit" and "vegetable" batteries for a science fair project. We both
>feel that it would enhance the exhibit part of the project to have a
>Lemon Powered QSO.

Jim,

I have to dissappoint you in saying that there is not such a thing as lemmon power. In the system you want to demonstrate the power comes from the electrodes dissolving in the poor fruit, which is being abused as electro-lyte.

Ever wondered why Nicads are not called potassium-hydroxides?

These "lemmon powered" demos only contribute to confusion and should be dropped quietly.

Quite seriously, Moritz

Date: 11 Oct 1994 17:08:07 -0400
From: jimm0oct@aol.com (JimN0OCT)
Subject: Suggestions on Lemon Powered QRP rig

In article <37ejpf\$iqi@info2.rus.uni-stuttgart.de>, moritz@ipers1.e-technik.uni-stuttgart.de () writes:

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>>"fruit" and "vegetable" batteries for a science fair project. We both
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>These "lemmon powered" demos only contribute to confusion
>and should be dropped quietly.

>Quite seriously, Moritz

If indeed you are quite serious, then I have to disagree with you. As long as an understandable electrochemical explanation is given for **why** the lemons and electrodes work, I don't see anything wrong with a demo of this type.

Just my USD0.02

73, jim n0oct

Date: 11 Oct 1994 18:08:48 GMT
From: moritz@ipers1.e-technik.uni-stuttgart.de ()
Subject: Using a 74HC4046 be used for an LO in a receiver?

About 10 years ago in a UK magazine there was a VFO based on a VCO (for any amateur band) and a crystal oscillator about 500 kc off the desired band. The frequency difference was phase locked to a vfo tuned by a 500 pf max variable capacitor around 500 kc.

73, Moritz DL5UH

Date: Tue, 11 Oct 1994 20:59:01 GMT
From: tgm@netcom.com (Thomas G. McWilliams)
Subject: Wanted: High Voltage tubes

Forrest T Charnock (charnoft@wfu.edu) wrote:

: I'm looking for some tubes (preferably triodes, but not necessarily)
: that can handle from 10 to 25 kV. If you have any thoughts, please send me a
: note.
: Thanks!

You can find some nice high-voltage diode tubes in the flyback circuit of an old color TV ... drive around your neighborhood on garbage day looking for old console TVs.

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Date: 10 Oct 1994 19:24:47 -0700
From: rdcole@crl.com (Ron Cole)
Subject: Where can I mailorder parts on the Internet?

Teh Aik Wen (s2202629@np.ac.sg) wrote:
: I'd like to know if there's anywhere on the net I can mailorder for
: stuffs in the Radio Shack or Maplin catalog or any other major electronics
: companies (Are they called that?)

I read an article about an Electronics supply Company in CA. that is selling over the internet. Marshall Industries. There was no other information about how to contact then company just a quick interview with the CO Pres. about being the first to do it. Seemed like it was San Mateo (sp?)

Ron

End of Ham-Homebrew Digest V94 #301
